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MCP INTERIM PHASE II REPORT FOR THE ALLENDALE SCHOOL PROPERTY

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

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MCP INTERIM PHASE II **REPORT** FOR **THE ALLENDALE SCHOOL PROPERTY**

TABLE OF CONTENTS

MCP **INTERIM PHASE II REPORT FOR THE ALLENDALE SCHOOL PROPERTY**

TABLE OF CONTENTS
(cont'd)

SECTION 1 - INTRODUCTION

1.1 General

This report addresses the area known as the Allendale School Property located north of the General Electric Company (GE) facility in Pittsfield, Massachusetts (Figure 1-1). This report constitutes an interim report on a Phase II - Comprehensive Site Assessment of the Allendale School Property as required by the Massachusetts Department of Environmental Protection (MDEP) pursuant to the Massachusetts Contingency Plan (MCP). GE has completed Phase I of the MCP process for the Allendale School Property, which is currently designated by the MDEP as within Phase II - Comprehensive Site Assessment of the MCP process.

The Allendale School Property was originally considered by the MDEP as part of the Hill 78 Area MCP site at the GE facility. GE has subsequently proposed, and the MDEP has agreed, that the Allendale School Property should be a separate "site" under the MCP. The MDEP has agreed that the requirements for the Phase I site investigation have been fulfilled by prior investigations and activities.

In a letter dated March 6, 1992, the MDEP classified the Allendale School Property under the MCP as a priority disposal site for which further remedial response action is necessary, and stated that a Scope of Work (SOW) for a Phase II - Comprehensive Site Assessment must be submitted within 60 days of the date of the letter. On May 4, 1992 GE submitted to the MDEP a Phase II SOW designed to address remaining data gaps associated with a Comprehensive Site Assessment. The activities proposed in that document were conditionally approved by the MDEP in a letter dated June 30, 1992 (included in Appendix A).

1.2 Format of Document

This document is divided into several sections. These sections include a detailed description of the property and related history, a summary of previous. investigations, the results of the MCP Phase II investigations, and characterization of the polychlorinated biphenyls (PCBs) and other hazardous constituents detected at the property.

Specifically, Section 1.3 presents pertinent background information. Section 2 describes the physical and environmental setting. It includes maps and photographs, and discusses topography, surface drainage and vegetation, surface water, flooding potential, wetlands and critical wildlife habitats, regional geology and groundwater, land use, climatological, meteorological, and air dispersion information, and utilities. Section 3 provides a source description, and Section 4 provides a discussion of prior activities, Section 5 provides information related to the MCP Phase II investigation. Section 6 presents a general summary of the fate and transport characteristics of the principal constituent detected (PCBs), and Section 7 discusses potential migration pathways, based on the information presented in Sections 2 through 6. Section 8 summarizes the overall conclusions and future activities.

1.3 Background Information

The Allendale School Property is located to the north of the Hill 78 Area of the GE facility, across the Tyler Street Extension. It is depicted on Figures l-l and 1-2. The school was constructed in 1950. At that time, GE and the City of Pittsfield entered into an agreement under which GE gave the City Permission to remove soil material from the GE property for use as fill material in the school yard. Additional information regarding this agreement is presented in Section 3.1.

Concerns associated with the Allendale School Property were initially identified by the MDEP during construction of the Altresco Corporation Cogeneration Facility, located within GE property southeast of the school property. The presence of PCBs in soil at the GE property led to MDEP concerns regarding the potential presence of PCBs in the soils of the Allendale School Property. In response, the MDEP performed a soil and surface water sampling program for this area in January 1990. The MDEP investigation detected low levels of PCBs in the surficial soils in the southeast corner of the Allendale School Property. The MDEP subsequently established a PCB concentration of 2 parts per million (ppm) (dry weight) as the "level of concern" for surficial soils in this area. Two samples collected from the school property by the MDEP exceeded this concentration. The results of the surface water analysis indicated that PCBs were not detected.

The detection of PCBs by the MDEP at the school property above this level of concern led to several subsequent sampling events by GE designed to characterize the extent of PCBs present, as well as to assess the potential presence of other hazardous constituents. These activities were conducted between April 1990 and September 1990. These activities are discussed in more detail in Section 4.

As a result of these investigations, GE and the MDEP evaluated a range of options for conducting a Short-Term Measure (STM) to reduce the potential for human contact with soils containing PCBs above the MDEP's level of Concern. GE's evaluation was presented in a document entitled "Study Of Potential Remedial Options for PCB-Containing Soils at the Allendale School. Property" (Blasland & Bouck, September 1990). In a March 15, 1991 letter to GE, the MDEP conditionally approved the containment/capping option presented in that report. As conditionally approved by the MDEP, the STM involved the placement of a minimum of 2 feet of "clean" soil (and a geotextile layer) over

all areas where soil PCB concentrations exceeded 2 ppm within the top 3 feet of existing soil. In addition, improvements to the existing surface water drainage system in the area were included.

The MDEP's conditions were incorporated into the study and a revised version of the report entitled 'Study of Potential Remedial Options for PCB-Containing Soils at the Allendale School Property" was submitted in April 1991 (Blasland & Bouck, April 1991). Construction activities were initiated in June 1991 after school had recessed for the summer. These activities were completed in the summer of 1991, in accordance with the conditions set out by the MDEP.

In a letter dated March 6. 1992, the MDEP classified the Allendale School Property as a priority disposal site under the MCP for which further remedial response action is necessary, and stated that a Scope of Work (SOW) for a Phase II - Comprehensive Site Assessment must be submitted within 60 days of the date of the letter. On May 4, 1992, GE submitted to the MDEP a Phase II SOW designed to address the remaining data gaps associated with a Comprehensive Site Assessment. The activities proposed in that document were conditionally approved by the MDEP in a letter dated June 30. 1992 (included in Appendix A).

SECTION 8 - CONCLUSIONS AND FUTURE ACTIVITIES

8.1 Conclusions

Investigations of the Allendale School Property have revealed the presence of PCBs in the soil, mainly associated with sandy soil/fill material that was probably transported to the site from the GE facility when the school was constructed in 1950-51. The horizontal extent and vertical extent of the PCBs in the soil have been well defined. In 1991, a STM was implemented which included the placement of a cap of a minimum of two feet of clean soil, along with a geotextile layer, over all areas of the school yard where soil P C B concentrations exceeded 2 ppm within the top three feet of existing soil. Geostatistical analysis indicates that all areas containing PCB concentrations above 2 ppm (the MDEP's level of concern for this site) are under this cap. Analysis of soil samples for other hazardous constituents reveals no other constituents of concern at this site (except, possibly for PCDFs).

Groundwater sampling and analysis shows that VOCs are not present in the site groundwater. Concentrations of PCBs in unfiltered groundwater samples were found to range from 0.6 ppb to 4.2 ppb. Concentrations of PCBs in filtered groundwater samples were found to range from non-detectable to 0.19 ppb (which is close to the analytical detection limit).

Ambient air concentrations of PCBs at the Allendale School Property have been estimated based on extrapolations from air concentrations measured at the Hill 78 Area south of the school property, using dispersion modeling techniques. This analysis indicates that the average non-background PCB concentrations at the school property range from 0.00008 ug/m3 to 0.00048 ug/m3 on an annual basis and from approximately 0.0001 ug/m3 to 0.0011 ug/m3 during the summer months, and that the average total ambient PCB concentrations at the school property (including general background PCB levels) range from approximately

0.00033 ug/m3 to 0.00073 ug/m3 on an annual basis and from 0.00035 ug/m3 to 0.00135 ug/m3 during the summer months. A sensitivity analysis that compared these estimated values to the concentrations measured at the Hill 78 Area monitor was performed. This analysis indicates that the modeled results at the Allendale School Property are generally comparable to those measured at the Hill 78 Area monitor on both an annual and a seasonal (summer) basis, thus lending support to the modeling results.

Review of the available data on the Allendale School Property does not indicate a need for supplemental Phase II field investigations.

8.2 Future Activities

The MCP Phase II SOW for the Allendale School Property provided that, if no supplemental Phase II investigations are required, a Risk Assessment/Characterization Scope of Work would be submitted following receipt of the MDEP's approval of the Interim Phase II Report. As noted above, review of the available data on the school property does not indicate a need for supplemental field investigations at this time. Accordingly, it is proposed that a Risk Assessment/Characterization SOW be submitted to the MDEP within 60 days after the MDEP's approval of this Interim Phase II Report, unless the MDEP determines that supplemental investigations are necessary. Upon MDEP approval, the Risk Assessment/Characterization will be performed in accordance with the procedures and schedule set out in that SOW, and the results will be included in a Final Phase II Report on this site.